

IN THE CLAIMS:

- 1 1. (Currently Amended) An interlayer for placement on a paved surface, comprising a mixture of:  
2 aggregate comprised of no more than about 15% by weight natural sand, wherein said aggregate  
3 that is not natural sand is manufactured sand with an angularity of at least 38%, and  
4 wherein said aggregate is comprised of about 80% by weight to about 100% by weight  
5 aggregate having a sieve size of less than about 4.75 mm; and  
6 an asphalt binder, wherein said interlayer has a Hveem Stability at 60°C and 50 gyrations of at  
7 least about 22 and a Flexural Beam Fatigue of at least about 50,000 cycles at 2000  
8 microstrains, 10 Hz,  $3.0 \pm 2.0\%$  air voids, at 0-30°C;  
9 where the mixture is covered with an asphalt overlay.
- 1 2. (Previously Presented) The interlayer of claim 1, wherein said asphalt binder is a polymer  
2 modified asphalt binder.
- 1 3. (Previously Presented) The interlayer of claim 1, wherein said interlayer is about 0.5 to 2 inches  
2 thick on a paved surface.
- 1 4. (Previously Presented) The interlayer of claim 1, wherein said binder is chosen based on the  
2 temperature associated with the regional climate.
- 1 5. (Previously Presented) The interlayer of claim 1, wherein said binder is chosen from a Type I  
2 binder for Northern Type I climates, a Type II Binder for Central Type II climates, and a Type III binder  
3 for Southern Type III climates.
- 1 6. (Previously Presented) The interlayer of claim 1, wherein said interlayer is substantially  
2 impermeable.

1 7. (Previously Presented) The interlayer of claim 1, wherein said aggregate is comprised of no more  
2 than about 10% by weight natural sand.

1 8. (Previously Presented) The interlayer of claim 1, wherein said aggregate is comprised of no more  
2 than about 5% weight natural sand.

1 9. (Cancelled)

1 10. (Previously Presented) The interlayer of claim 1, wherein said aggregate is comprised of about  
2 40% by weight to about 70% by weight aggregate having a sieve size of less than about 1.18 mm.